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(54) PRODUCTION OF OPTICALLY ACTIVE  
ALPHA-HYDROXY ACID OR  
ALPHA-HYDROXYAMIDE

ically controlling the cyanohydrin concentration in the system.

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(57) Abstract:

PURPOSE: To simply obtain the subject compound at a high concentration by an action of a microorganism by continuously monitoring the cyanogen ion concentration in a reactional system with a cyanogen ion detector and interlocking the cyanogen ion detector and a regulator with a cyanohydrin feeder.

CONSTITUTION: A cyanohydrin of formula I {9146/28} R<sub>1</sub> is H or methyl; R<sub>2</sub> is an alkyl (except methyl when R<sub>1</sub> is methyl) is reacted with a microorganism having the nitrilase or nitrile hydratase activity or a treated substance thereof and converted into an optically active α-hydroxy acid or α-hydroxyamide of formula II (X is carboxyl or amide). The cyanogen ion concentration in the system is continuously monitored with a cyanogen ion detector and a cyanohydrin feeder is interlocked with the cyanogen ion detector and regulator to carry out the reaction while automat-

